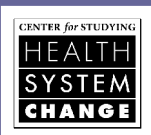


Clinical IT Adoption in the U.S.

**Presentation to Washington State Health
Information Infrastructure Advisory Board,
March 23, 2006**

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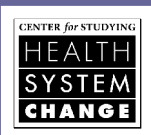


HSC

- Non-partisan policy research organization
- Funded principally by The Robert Wood Johnson Foundation
- Track health system change and its effects on people
- Community Tracking Study (CTS) site visits and surveys
- Actively monitoring HIT adoption and use

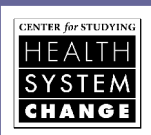
CTS Site Visit Communities





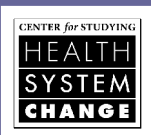
Presentation Outline

- Clinical IT adoption
 - Hospitals
 - Safety net providers
 - Physician practices
 - Health plans
- Clinical data sharing across patient care settings
- Gap between IT vision and reality



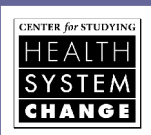
HSC IT Studies

- Clinical data sharing activities
 - Community Track Study (CTS) site visits in 12 representative metropolitan areas, 12/04-7/05
 - Largest hospitals/systems and physician practices
- Clinical IT adoption in physician practices
 - CTS Physician Survey, 04-05 and 00-01
 - Nationally representative of all physicians
- Adoption and use of e-prescribing
 - AHRQ site visit project underway



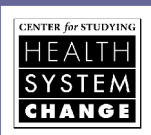
Hospital EMR Adoption In Progress

- IT for ordering and results most prevalent (AHA Survey, 2005)
 - Lab and radiology ordering and results (60%+ fully implemented, 11% partially implemented)
 - Pharmacy ordering (48%, 14%)
 - Radiology images including PACS (41%, 19%)
- Only half of hospitals with IT to access medical records have completed implementation (30%, 30%)
- Clinical decision support lags behind
 - Drug interaction alerts (10%+, 13%)
 - Clinical guidelines and pathways (9%, 26%)
- Two in five hospitals are “moderate” or “high” adopters



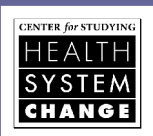
Larger Hospitals More Likely To Adopt

- Survey data underestimate IT adoption among hospitals with most beds/patients
- Large, urban and teaching hospitals more likely to adopt IT but substantial variation remains within types of hospitals
- In CTS sites, largest hospitals have or are implementing EMRs
 - Focus on integration of multiple legacy systems
- CPOE is on the list but not necessarily at the top



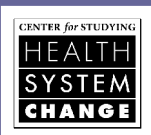
Market Variation in Hospital Adoption

- Most markets have one or two IT leaders
- More variation by market in extent of follower vs. laggard hospitals
- Some outlier markets
 - More financially weak hospitals in NNJ; markets with significant growth like Phoenix
 - All large hospital systems in Boston and Indianapolis have EMRs.
- Seattle and Cleveland are among markets where most major hospitals have or are implementing EMRs



Fewer High Adopters Among Safety Net Providers

- Large gap between the “have” and “have not” safety net hospitals and CHCs
- “Haves” are in better financial condition and typically are affiliated with medical schools (hospitals) or hospital systems (CHCs)
 - NNJ lags behind while Boston is out ahead
 - In Seattle, safety net providers relatively well-positioned



Physicians Most Likely to Use IT To Access Information

- More than half of physicians report that IT is used in their practice to (CTS Physician Survey, 04-05 preliminary estimates):
 - Access treatment guidelines (~65%)
 - Access patient notes; for clinical data exchange w/other physicians (~50%)
- A third or fewer report that IT is used for direct patient care:
 - Preventative care reminders (~30%)
 - Email with patients (~25%)
 - Write prescriptions (~20%)



Substantial Variation by Physician Characteristics and Location

- Large physician organizations lead adoption
- Significant variation by specialty
- Few significant gaps in IT between urban and rural areas
- Larger differences by market
 - Leading markets vary by type of IT
 - Seattle out ahead on use of IT to access treatment guidelines and for reminders
 - Seattle has fewest “low adopters” and just behind Boston in percent of “high adopters” with 4+ functions



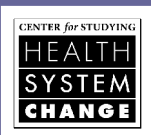
Physician IT Adoption Grows Substantially Between 2001 and 2005

- Growth ranges from 15% to 100% over four years depending on IT function
- Average annual growth rates of 1 to 3 percentage points per year
- Little change among practices <10 physicians



IT Adoption vs. Use in Hospitals and Physician Practices

- Significant variation in how IT is used to deliver care
- Driven by differences in:
 - IT system features
 - Implementation at organizational level
 - How individual physicians and other caregivers use IT



Health Plans and Clinical IT

- Clinical IT lags behind administrative efforts
- Few plans have made substantial investments in local market initiatives to date



Clinical Data Sharing Among Affiliated Providers Most Prevalent

- Most hospitals offer admitting physicians remote access to patient records via web-based portals
 - Few examples where practices' EMR data can be accessed in hospital, including Seattle

- Competition among hospitals driving widespread portal adoption
 - Strategy to align physicians more closely



Community-Wide Clinical Data Sharing Lags Substantially

- Little data sharing among unaffiliated organizations
- CTS sites mirror national trends
 - Only Indianapolis operational
 - MA/Boston piloting various community-wide efforts
 - Some other local and state efforts just beginning
 - In some markets, stakeholders pessimistic
- Washington State is unique in number of operational efforts



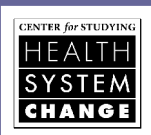
Competition Barrier to Community-Wide Data Sharing

- Patients and their data viewed as key competitive asset by hospitals, physicians and health plans
- Previous failed attempts have created mistrust
- Health plans not viewed as likely conveners
- More likely to see development of RHIOs in markets with less competition and greater benefits from joint investment in IT



Large Gap between IT Vision and Reality in the Field

- Implementation by average provider not “gold standard”
 - Lag between adoption and implementation is long
 - Many implementation challenges due to product limitations and organizational issues
 - Important role for policy makers in mitigating implementation challenges
 - System design needs to take into how physicians are most likely to use IT in practice



Large Gap between IT Vision and Reality in the Field (cont'd)

- Not at “tipping point” for smaller organizations
 - Larger, better-off organizations more likely to respond to competitive and policy drivers; adoption is accelerating
 - Lagging organizations are in more need of support (rural hospitals, smaller physician practices, safety net providers)
 - Strategies by hospitals and health plans to support IT adoption may come at expense of reduced competition



Large Gap between IT Vision and Reality in the Field (cont'd)

- Even fewer incentives to share clinical data
 - In many communities, likely to need levers to promote health information exchange
 - May also need incentives to get physicians to use system
 - To date, payment mechanisms to increase IT adoption have focused on adoption within organizations rather than data exchange